

Pulsation Dampeners

Pulsation dampeners can be used for the following cases:

It can be used for leakages in a hydraulic system. Also it can be used for any pressure changes due to thermal expansion.

It can be used as an energy storage device (Accumulator) in a hydraulic system. It supplies hydraulic power for a short period of time. This property is crucial for lube oil system which has to supply lube oil to critical rotating equipment wherein slightest delay may result in a costly failure to the equipment.

Pulsation Dampeners installed close to the valves is used to absorb the surge which is risen from the sudden pump shut-downs when the fluid flows back slamming into the pump or check valve.

It can be used in absorbing the surges like water hammer results from the sudden change of kinetic energy (of the flowing fluid) to pressure energy and thus saves costly equipment failures or replacements

Pulsations dampeners can be used in dampening the pressure surges/pulses on the discharge side of the pump, thus prolonging the life of the pump fluid end components.

Expanding gate valves are used in various industrial areas like isolation valves in power plants, ESD valves in production, block valves in process systems, high temperature valves in refineries, and pipeline valves in critical areas. These expanding gate valves manufactured by various manufacturers are available in all the sizes, pressure ranges, and trims used in piping systems requiring the positive shut off of liquid or gas.

The expanding gate valves are full bore through conduit valves with rising stem and parallel expanding gate and segment for tight mechanical seal and positive shut-off, both upstream and downstream, and under both low and high differential pressure.

An API 6A expanding gate valve should have the following features:

Parallel expanding gate design creates positive mechanical seal across both seats, both upstream and downstream, with or without line pressure.

Non-rising stem permits valve installation in pressure drop.

A double row roller thrust bearing on the stem makes operation easy, even under full pressure.

Upper and lower roller thrust bearings are used to minimize torque and are isolated from well-bore fluid.

